

Exercise Contraindications and Key Safety Guidelines for Special Populations

This is a general guide. Please refer to your manuals and webinar for more detailed guidance Gym Based Programme Planning and Preparation pages; 36, 43, 47, 48, 51, 52, 53

Webinars on eLearning;

- Muscular, Strength, Endurance (MSE) Theory Webinar
- L2 Gym Instructor Special Populations Webinar

Older People 65+

- Increased susceptibility to fractures
- Decreased joint stability
- Less shock absorbency
- Kyphotic posture
- Stiffness
- Decreased aerobic capacity

Exercises to avoid (depending on the individual)

- High Impact
- Flexion (spinal) type activities
- Complex choreography
- High intensity
- Anaerobic

Exercises to perform

- Longer pulse raiser (10-15 minutes) Maximum RPE 3/4
- Mobility and stretching
- Back extension (particularly thoracic)
- Interval type CV - New to exercise; start with moderate activity RPE 5/6
- Can build up to vigorous activity RPE 7/8 over time (2 minutes moderate is the equivalent of 1 minute vigorous).
- Functional activities
- Multi joint (compound) activities
- MSE - 10-15 reps body weight, resistance bands, light weights, 1 set can build up to 2 or 3
- Start with 60-70%1RM (for a deconditioned client, dependent on rep range) can build up to 80% 1RM for the lower rep range for postural areas.
- Balance activities (offer support)
- Core stability activities
- Stretching appropriate postural muscles

Young people (13-18)

- Implications of the incomplete fusing of the epiphyseal plate** - Susceptibility to damage
- Considerations for exercise, in particular avoid high intensity strength training
- Smaller heart & lungs, adolescents will need regular active rest to recover, cool down & take in water

Exercises to perform

- Adolescents may need a shorter warm-up and cool down compared to an adult.
- Interval based aerobic training
- Body weight
- Functional activities such as pulling/pushing
- Activities to develop motor skills: balance and co-ordination
- ACSM MSE Guidelines; 1-3 sets,
- Between 8 and 20 reps dependant on age and experience. 40-60% 1RM for 15-20 reps. Maximum of 80% 1RM for 8 reps - (no less than 8 reps - max 80% 1RM) 1-2 minutes rest period, Slow to moderate speed
- Body-weight exercises adapted for strength or endurance by increasing the length of the lever or by changing body position or the angle of the movement. Start with lighter work, such as band work (20 reps maximum), moving on to heavier weights (8 reps minimum)
- Some muscles benefit from developmental stretching due to the rapid bone growth during a growth spurt however a 'go back to' stretch approach is more appropriate.
- Exercises to avoid**
- Prolonged high intensity (anaerobic) activity
- High resistance (low reps)
- Excessive weight and power lifting is definitely not recommended for adolescents.